



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,551	03/12/2004	Thomas B. Bohn	CM06870H	7816
22917	7590	07/06/2007		
MOTOROLA, INC. 1303 EAST ALGONQUIN ROAD IL01/3RD SCHAUMBURG, IL 60196			EXAMINER GONZALEZ, AMANCIO	
			ART UNIT 2617	PAPER NUMBER
			NOTIFICATION DATE 07/06/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docketing.Schaumburg@motorola.com  
APT099@motorola.com

<b>Office Action Summary</b>	Application No. 10/799,551	Applicant(s) BOHN ET AL.	
	Examiner Amancio Gonzalez	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This action is in response to Applicant's amendment filed on 06/04/2007. Claims 1-12 are still pending in the present application. This action is made FINAL.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1, 2, 4-6, and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Desgagne et al. (US Pat 6295453), herein after Desgagne, in view of Haartsen (US Pat 6650630), herein after Haartsen.

Consider claim 1 as amended, Desgagne discloses a time division multiple access system (see Desgagne: col. 1 lines 52-55, col. 5 lines 65-67, col. 6 lines 36-44 and 64-67, col. 7 lines 1-3, col. 9 lines 52-53). Desgagne discloses receiving a

requested call type (**see Desgagne: col. 3 lines 7-14, col. 7 lines 33-37 and 47-56, col. 9 line 54**).

Desgagne discloses setting a slotting structure as an existing slotting structure for the **communication** channels based on the requested call type (**slotting structure reads on channel assignment process -see Desgagne: col. 7 lines 30-37, col. 9 lines 50-52**). Desgagne does not directly refer to the requested call as a "first" call, but discloses a first and a second sort of rate data call (**see Desgagne: Abstract**), which one of ordinary skill in the art at the time the invention was made would have understood as first and second call. Desgagne does not refer to the communication channels as "inbound and outbound channels." Haartsen discloses uplink and downlink time slotting (**with the user terminal taken as reference, downlink reads on inbound and uplink reads on outbound -see Haartsen: col. 2 lines 65-67, col. 3 lines 1-4**). Haartsen further discloses wherein the first slotting structure is selected from one of the inbound and outbound channels being aligned in time and the inbound and outbound channels being offset in time (**see col. 6 lines 49-67, col. 7 lines 1-8, col. 11 lines 1-9, figs. 2, and 9A, 9B, where Haartsen discusses a slotting structure for transmission and reception in which the channels are aligned in time**).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Desgagne and have it specify downlink and uplink time slotting, thereby providing methods and devices that support asymmetric services in a TDD system having multi-radio units and that use smart

resource allocation and smart control of asymmetric traffic in a wireless communication systems, as taught by Haartsen (**see col. 4 lines 30-36**).

Consider claim 2, Desgagne, as modified by Haartsen, teaches claim 1 above, and further discloses identifying a preferred channel feature requested for the call (see Desgagne: col. 7 lines 45-46), and Haartsen further discloses a preferable slotting structure (see Haartsen: col. 10 lines 18-24, col. 11 lines 1-6).

Consider claim 4, Desgagne, as modified by Haartsen, teaches claim 1 above, and further discloses receiving a requested call type for a call (see Desgagne: col. 3 lines 7-14, col. 7 lines 33-37 and 47-56, col. 9 line 54) and determining whether the requested call type can be supported by the existing slotting structure (see Desgagne: col. 3 lines 22-25).

Consider claim 5, Desgagne, as modified by Haartsen, teaches claim 4 above, and further discloses wherein if the second requested call type can be supported by the existing slotting structure, granting the second requested call type if there are enough available channels in the system to support the second requested call type; otherwise denying the second requested all type (see Desgagné: col. 12 lines 32-46, fig. 3A).

Consider claim 6 as amended, Desgagne, as modified by Haartsen, teaches claim 4 above, and further discloses wherein if the second requested call type cannot be supported by the existing slotting structure: determining whether the first requested call type can be supported by a second slotting structure required to support the second requested call type; and if the first requested call type can be supported by the second slotting structure, changing the existing slotting structure to the second slotting

Art Unit: 2617

structure, and granting the second requested call type (see Desgagne: col. 12 lines 32-46, figs. 3A and 3B). Haartsen further discloses wherein the first slotting structure is selected from one of the inbound and outbound channels being aligned in time and the inbound and outbound channels being offset in time (see Haartsen: col. 6 lines 49-67, col. 7 lines 1-8, col. 11 lines 1-9, figs. 2, and 9A, 9B, where Haartsen discusses a slotting structure for transmission and reception in which the channels are aligned in time).

Consider claim 9 as amended, Desgagne, as modified by Haartsen, teaches claim 1 above, and further discloses assigning priority (see Desgagne: col. 9: 56-60, col. 10 lines 61-67, col. 11 lines 7-13) and dynamically changing slotting structure according to service request (see Desgagne: col. 12 lines 32-46, figs. 3A and 3B). Haartsen further discloses wherein the first slotting structure is selected from one of the inbound and outbound channels being aligned in time and the inbound and outbound channels being offset in time (see Haartsen: col. 6 lines 49-67, col. 7 lines 1-8, col. 11 lines 1-9, figs. 2, and 9A, 9B, where Haartsen discusses a slotting structure for transmission and reception in which the channels are aligned in time).

Consider claim 10, Desgagne, as modified by Haartsen, teaches claim 9 above, and further discloses dropping the first requested call type if the first requested call type cannot be supported by the second slotting structure (service type reads on slotting structure -see Desgagne: col. 8 lines 65-67, col. 9 lines 1-11, col. 12 lines 32-46, fig. 3A).

Consider claim 11, Desgagne, as modified by Haartsen, teaches claim 9 above, and further discloses determining channel availability (see Desgagne: col. 8 lines 65-67, col. 9 lines 1-11, col. 12 lines 32-46) and performing call dropping upon a defined condition (see Desgagne: col. 8 lines 65-67, col. 9 lines 1-11, col. 12 lines 32-46, fig. 3A).

5. Claims 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Desgagne et al. (US Pat 6295453), herein after Desgagne, in view of Haartsen (US Pat 6650630), herein after Haartsen, as applied to claims 1 and 6 above, further in view of Dertz et al. (US PGPub 20020093948), herein after Dertz.

Consider claim 3, Desgagne, as modified by Haartsen, teaches claim 1 above, and further discloses receiving a requested call type for a call (see Desgagne: col. 3 lines 7-14, col. 7 lines 33-37 and 47-56, col. 9 line 54), does not explicitly mention denying the call if there are not enough available bandwidth in the system to support requested call type. Dertz discloses denying the call if there are not enough available bandwidth to support the call type (see Dertz: Abstract, par. 0055). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Desgagne and Haartsen and have it include a service controller and bandwidth manager, as taught by Dertz (see Dertz: par. 0053), thereby efficiently managing calls of distinct information contents in narrowband communication systems.

Consider claim 7, Desgagne, as modified by Haartsen, teaches claim 6 above, but does not particularly mention sending message to the user. Dertz disclose sending

message to the user (user reads on subscriber –see Dertz: par. 0025, fig. 2). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Desgagne and Haartsen and have it send a message to the user, thereby keeping the subscriber aware of the connection and service through the system, as taught by Dertz.

6. Claims 8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Desgagne et al. (US Pat 6295453), herein after Desgagne, in view of Haartsen (US Pat 6650630), herein after Haartsen, as applied to claims 4 and 1 above, further in view of Dertz et al. (US PGPub 20020093948), herein after Dertz, and Klein et al. (US Pat 6707798), herein after Klein.

Consider claims 8 and 12, Desgagne, as modified by Haartsen, teaches claim 4 and 1 above respectively, but does not particularly mention unit-to-wireline interconnection or half-duplex transmission. Dertz discloses unit-to-wireline connection (see Dertz: pars. 0037, 0055, 0071, 0072, 0087) and Klein discloses half duplex transmission (see Klein: col. 8 lines 8-11, col. 9 lines 36-37, col. 17 lines 20-24). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Desgagne and Haartsen and have it include unit-to-wireline interconnection and half-duplex transmission, as taught by Dertz and Klein, thereby effectively managing and conveniently applying time slotting schemes in communication systems.



### ***Response to Arguments***

7. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the combination of Desgagne and Haartsen teaches the limitation of slotting structures in a time division multiple access system, as recited by claim 1.

8. Applicant's arguments with respect to **claims** 1, 6, 9, and 12 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

10. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 2617

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Hand-delivered responses** should be brought to

Customer Service Window  
Randolph Building  
401 Delaney Street  
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Amnion Gonzalez, whose telephone number is (571) 270-1106. The Examiner can normally be reached on Monday-Thursday from 7:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Nick Corsaro can be reached at (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status

Art Unit: 2617

information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Amancio González  
AG/ag

June 25, 2007

  
NICK CORSARO  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600